

Polycyclic Aromatic Hydrocarbons in Drinking Water by Liquid-Solid Extraction and HPLC/UV and Fluorescence Detection
EPA 550.1 July 1990

Facility Name: _____ VELAP ID _____

Assessor Name: _____ Analyst Name: _____ Inspection Date _____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
<i>Records Examined:</i> SOP Number/ Revision/ Date _____ Analyst: _____ Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____					
1) Are samples collected in amber bottles with Teflon lined tops?	6.1				
2) Are sample bottles not pre-rinsed with the sample prior to collection?	8.1				
3) Is NaHSO ₄ added if residual chlorine is present?	8.2				
4) Is pH adjusted to <2?	8.2				
5) Are samples extracted within 7 days and analysis completed in 40 days?	8.3				
6) Is laboratory glassware muffled at 400°C or washed with acetone and pesticide grade hexane?	4.1.1				
7) Are solvents pesticide grade for MeCl ₂ and HPLC grade for acetonitrile?	7.3 – 7.4				
8) Is Na ₂ SO ₄ purified by heating at 400°C?	7.5				
9) Is stock standard stored at 4°C & protected from light?	7.6.2				
10) Is stock standard re-prepared sooner than 6 months?	7.6.3				
11) Is internal standards used or external standards used?	9.1				
12) Is the Fluorescence detector at 280 nm and emission greater than 389 nm cut off?	6.5.3				
13) Is the UV detector at 254 nm and coupled with the fluorescence detector? (should)	6.5.3				
Notes/Comments:					

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14) Are at least 3 initial calibration standards used?	5.7.1				
15) Is lowest standard near the MDL (external standard)?	9.2.1				
16) Are daily standard verification < 20%? (must be)	9.4				
17) Are IDC concentrations ~ 10 time MDL and 3 or 4 results within 30 % or 3 sigma	10.3				
18) If using ISTD, does daily mean response not vary by more than +/- 30%	10.4				
19) Is LFB 10 times the MDL?	10.5.1				
20) Are control limits determined for the LFB?	10.5.2				
21) Is LFM analyzed at frequency of 10% or one per set?	10.6				
22) Is Quality Control Sample analyzed quarterly?	10.7				
23) Is sample cleanup conducted using C-18 cartridge or disk?	11.2.1				
24) Is sample bottle marked to determine sample volume to nearest 5 mL?	11.2.2 11.2.9				
25) Is sample added to 2 L separatory funnel and is ISTD added if used?	11.2.2				
26) If a cartridge is used , is sample passed through C-18 using vacuum flask?	11.2.3				
a) Is cartridge washed with 10 mL water and vacuumed for 10 minutes?	11.2.4				
b) Is sample eluted with two 5 mL portions of MeCl ₂ and added to 2 mL wash of separatory funnel and 1 mL wash of sample bottle?	11.2.5				

Notes/Comments:

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c) Is the sample dried with NaSO ₄ and concentrated to 1 mL?	11.2.6 – 11.2.7				
d) Is 3 mL of acetonitrile added and concentrate to 0.5 mL?	11.2.8				
28) If disk extraction is used , is 5 mL MeOH used per liter of sample	11.3.2				
a) Is sample filtered through disk?	11.3.4				
b) Is 5 mL acetonitrile used to wash sample bottle and transferred to the disk in half increments?	11.3.4				
c) Is the sample bottle washed with two 5 mL portions of MeCl ₂ , transferred to the disk, and then poured through Na ₂ SO ₄ ?	11.3.4				
d) At 28°C, is eluate evaporated under N ₂ to 0.5 mL?	11.3.5				
29) If there is any doubt of the resultant peak is confirmation such GC/MS or alternative column used?	11.4.5				
Notes/Comments:					